SEQUENCE LISTING

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<120> METHODS AND COMPOSITIONS FOR MODULATING FERTILITY

<130> 9426-015-999

<140> 09/890,709
<141> 2001-07-31

<150> PCT/US00/02675
<151> 2000-02-01

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<170> PatentIn version 3.0

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Val Asp Leu Tyr Ser Pro Lys Gly Gln Gln Asp Gln Asp Arg Lys Val
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Ile Cys Phe Val Asp Val Ser Thr Leu Asn Val Glu Asp Phe Asn Ser
35 40 45

Lys Gly Ala Ala Gly Pro Arg Ser Glu Gly Glu Leu Asn Leu Glu Asn
50 55 60

Leu Glu Glu Lys Glu Ile Ile Val Ile Lys Asp Thr Glu Lys Gln Asp
65 70 75 80

Gln Ser Lys Thr Glu Gly Ser Val Cys Leu Phe Lys Gln Ala Pro Ser
85 90 95

Asp Pro Ile Ser Val Leu Asn Trp Leu Leu Asn Asp Leu Gln Lys Tyr
100 105 110

Ala Ser Gly Phe Gln Gln Ala Leu Ser Pro Ser Ala Ser Ser Cys Lys
115 120 125

His Lys Val Gly Asp Leu Glu Gly Asp Tyr His Lys Ile Pro Ser Glu
130 135 140

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Glu Cys Tyr Ser Val Tyr Ala Asp Gln Val Asn Leu Asp Tyr Leu Asn
145                 150                 155                 160

Lys Gly Pro Gln Asn Leu Arg Leu Glu Met Ala Ala Ser Lys Asn Thr
                165                 170                 175

Asn Asn Asn Gln Ser Pro Ser Asn Pro Ala Thr Lys Ser Pro Ser Asn
            180                 185                 190

Gln Arg Ser Val Ala Thr Pro Asp Gly Glu Cys Ser Met Asp Asp Leu
        195                 200                 205

Ser Tyr Tyr Val Asn Arg Leu Ser Ser Leu Val Ile Gln Met Ala Arg
    210                 215                 220

Lys Glu Ile Lys Asp Lys Leu Glu Gly Gly Asn Lys Cys Leu His His
225                 230                 235                 240

Ser Met Tyr Thr Ser Gly Glu Lys Gly Lys Thr Ser Pro Arg Ser Ala
                245                 250                 255

Val Ser Lys Ile Ala Ser Glu Met Ala His Glu Ala Val Glu Leu Thr
            260                 265                 270

Ser Ser Glu Met Arg Gly Asn Gly Glu Glu Gly Arg Asp Gly Arg Lys
        275                 280                 285

Thr Phe Leu Tyr Ser Glu Leu Ser Asn Lys Asn Lys Cys Gly Glu Lys
    290                 295                 300

Gln Gln Met Cys Pro Lys Asp Ser Lys Glu Phe Ala Asp Ser Ile Ser
305                 310                 315                 320

Lys Gly Leu Met Val Tyr Ala Asn Gln Val Ala Ser Asp Met Met Val
                325                 330                 335

Ser Val Met Lys Thr Leu Lys Val His Ser Cys Gly Lys Pro Ile Pro
            340                 345                 350

Ala Cys Val Val Leu Lys Arg Val Leu Leu Lys His Thr Lys Glu Ile
        355                 360                 365

Val Ser Asp Leu Ile Asp Ser Cys Met Lys Asn Leu His Asn Ile Thr
    370                 375                 380

Gly Val Leu Met Thr Asp Ser Asp Phe Val Ser Ala Val Lys Arg Asn
385                 390                 395                 400

Leu Phe Asn His Gly Lys Gln Asn Ala Ala Asp Ile Met Glu Ala Met
                405                 410                 415

Leu Lys Arg Leu Val Ser Ala Leu Leu Gly Glu Lys Lys Glu Thr Lys
            420                 425                 430

Ser Gln Ser Leu Ala Tyr Ala Thr Leu Lys Ala Gly Thr His Asp Pro
        435                 440                 445

Lys Cys Lys Asn Gln Ser Leu Glu Phe Ser Ala Met Lys Ala Glu Met
    450                 455                 460

Lys Gly Lys Asp Lys Gly Lys Thr Lys Gly Asp Pro Cys Cys Lys Ser
465                 470                 475                 480
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Leu Thr Ser Ala Glu Arg Val Ser Glu His Ile Leu Lys Glu Ser Leu
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Thr Met Trp Asn Asn Gln Lys Gln Gly Thr Gln Gly Arg Val Pro Asn
500 505 510

Lys Val Cys Pro Ser Lys Asp Glu Lys Arg Glu Lys Ile Ser Pro Ser
515 520 525

Thr Asp Ser Leu Ala Lys Asp Leu Ile Val Ser Ala Leu Met Leu Ile
530 535 540

Gln Tyr His Leu Thr Gln Gln Ala Lys Gly Lys Asp Pro Cys Glu Glu
545 550 555 560

Glu Cys Pro Gly Ser Ser Met Gly Tyr Met Ser Gln Ser Ala Gln Tyr
565 570 575

Glu Lys Ser Gly Gly Gly Gln Ser Ser Lys Ser Leu Ser Met Lys His
580 585 590

Phe Glu Ser Arg Gly Ala Pro Gly Pro Ser Thr Cys Ala Lys Glu Asn
595 600 605

Gln Leu Glu Ser Gln Lys Met Asp Met Ser Asn Met Val Leu Ser Leu
610 615 620

Ile Gln Lys Leu Leu Ser Glu Ser Pro Phe Ser Cys Asp Glu Leu Ser
625 630 635 640

Glu Ser Glu Asn Lys Arg Cys Cys Asp Ser Arg Ser Lys Gln Ala Ala
645 650 655

Pro Val Ala Lys Arg Pro Glu Asp Gln Ser Gln Asp Ser Thr Glu Met
660 665 670

Asp Phe Ile Ser Gly Met Lys Gln Met Asn Arg Gln Phe Ile Asp Gln
675 680 685

Leu Val Glu Ser Val Met Lys Leu Cys Leu Ile Met Ala Lys Tyr Ser
690 695 700

Asn Asn Gly Ala Ala Leu Ala Glu Leu Glu Glu Gln Ala Ala Leu Ala
705 710 715 720

Ser Asn Gly Pro Arg Cys Gly Arg Glu Ala Val Met Ser Gln Ser Tyr
725 730 735

Pro Glu Thr Pro Gly Pro Glu Val Ile Val Asn Asn Gln Cys Ser Thr
740 745 750

Ser Asn Leu Gln Lys Gln Leu Gln Ala Val Leu Gln Trp Ile Ala Ala
755 760 765

Ser Gln Phe Asn Val Pro Met Leu Tyr Phe Met Gly Asp Asp Asp Gly
770 775 780

Gln Leu Glu Lys Leu Pro Glu Val Ser Ala Lys Ala Ala Glu Lys Gly
785 790 795 800

Tyr Ser Val Gly Asp Leu Leu Gln Glu Val Met Lys Phe Ala Lys Glu
805 810 815

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Thr Gln Leu Asp Glu Ala Val Gly Asn Met Ala Arg Lys Gln Leu Leu
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Asp Trp Leu Leu Ala Asn Leu
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<212> PRT

<213> Homo sapiens

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Val Asp Val Tyr Ser Pro Gly Asp Asn Gln Ala Gln Asp Trp Lys Met
            20                  25                  30

Asp Thr Ser Thr Asp Pro Val Arg Val Leu Ser Trp Leu Arg Arg Asp
        35                  40                  45

Leu Glu Lys Ser Thr Ala Glu Phe Gln Asp Val Arg Phe Lys Pro Gly
    50                  55                  60

Glu Ser Phe Gly Gly Glu Thr Ser Asn Ser Gly Asp Pro His Lys Gly
65                  70                  75                  80

Phe Ser Val Asp Tyr Tyr Asn Thr Thr Thr Lys Gly Thr Pro Glu Arg
                85                  90                  95

Leu His Phe Glu Met Thr His Lys Glu Ile Pro Cys Gln Gly Pro Arg
            100                 105                 110

Ala Gln Leu Gly Asn Gly Ser Ser Val Asp Glu Val Ser Phe Tyr Ala
        115                 120                 125

Asn Arg Leu Thr Asn Leu Val Ile Ala Met Ala Arg Lys Glu Ile Asn
    130                 135                 140

Glu Lys Ile Asp Gly Ser Glu Asn Lys Cys Val Tyr Gln Ser Leu Tyr
145                 150                 155                 160

Met Gly Asn Glu Pro Thr Pro Thr Lys Ser Leu Ser Lys Ile Ala Ser
                165                 170                 175

Glu Leu Val Asn Glu Thr Val Ser Ala Cys Ser Arg Asn Ala Ala Pro
            180                 185                 190

Asp Lys Ala Pro Gly Ser Gly Asp Arg Val Ser Gly Ser Ser Gln Ser
        195                 200                 205

Pro Pro Asn Leu Lys Tyr Lys Ser Thr Leu Lys Ile Lys Glu Ser Thr
    210                 215                 220

Lys Glu Arg Gln Gly Pro Asp Asp Lys Pro Pro Ser Lys Lys Ser Phe
225                 230                 235                 240
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Phe Tyr Lys Glu Val Phe Glu Ser Arg Asn Gly Asp Tyr Ala Arg Glu
                245                 250                 255

Gly Gly Arg Phe Phe Pro Arg Glu Arg Lys Arg Phe Arg Gly Gln Glu
            260                 265                 270

Arg Pro Asp Asp Phe Thr Ala Ser Val Gly Glu Gly Ile Met Thr Tyr
        275                 280                 285

Ala Asn Ser Val Val Ser Asp Met Met Val Ser Ile Met Lys Thr Leu
    290                 295                 300

Lys Ile Gln Val Lys Asp Thr Thr Ile Ala Thr Ile Leu Leu Lys Lys
305                 310                 315                 320

Val Leu Leu Lys His Ala Lys Glu Val Val Ser Asp Leu Ile Asp Ser
                325                 330                 335

Phe Leu Arg Asn Leu His Ser Val Thr Gly Thr Leu Met Thr Asp Thr
            340                 345                 350

Gln Phe Val Ser Ala Val Lys Arg Thr Val Phe Ser His Gly Ser Gln
        355                 360                 365

Lys Ala Thr Asp Ile Met Asp Ala Met Leu Arg Lys Leu Tyr Asn Val
    370                 375                 380

Met Phe Ala Lys Lys Val Pro Glu His Val Arg Lys Ala Gln Asp Lys
385                 390                 395                 400

Ala Val Ser Tyr Ser Leu Ile Ser Met Lys Gly Met Gly Asp Pro Lys
                405                 410                 415

Asn Arg Asn Val Asn Phe Ala Met Lys Ser Glu Thr Lys Leu Arg Glu
            420                 425                 430

Lys Met Tyr Ser Glu Pro Lys Ser Glu Glu Glu Thr Cys Ala Lys Thr
        435                 440                 445

Leu Gly Glu His Ile Ile Lys Glu Gly Leu Thr Leu Trp His Lys Ser
    450                 455                 460

Gln Gln Asn Glu Cys Lys Ser Leu Gly Phe Gln His Ala Ala Phe Glu
465                 470                 475                 480

Ala Pro Asn Thr Gln Arg Lys Pro Ala Ser Asp Ile Ser Phe Glu Tyr
                485                 490                 495

Pro Glu Asp Thr Gly Asn Leu Ser Leu Pro Pro Tyr Pro Pro Glu Lys
            500                 505                 510

Pro Glu Asn Phe Met Tyr Asp Ser Asp Ser Trp Ala Lys Asp Leu Ile
        515                 520                 525

Val Ser Ala Leu Leu Leu Leu Ile Gln Tyr His Leu Ala Gln Gly Gly Arg
    530                 535                 540

Arg Asp Ala Arg Ser Phe Val Glu Ala Ala Gly Thr Thr Asn Phe Pro
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Ala Asn Glu Pro Pro Val Ala Pro Asp Glu Ser Cys Leu Lys Ser Ala
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Pro Ile Val Gly Asp Gln Glu Gln Ala Glu Lys Lys Asp Leu Arg Ser
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Val Phe Phe Asn Ser Ile Arg Asn Leu Leu Ser Glu Thr Ile Phe Lys
        595                 600                 605

Arg Asp Gln Ser Pro Glu Pro Lys Val Pro Glu Gln Pro Val Lys Glu
    610                 615                 620

Asp Arg Lys Leu Cys Glu Arg Pro Leu Ala Ser Ser Pro Pro Arg Leu
625                 630                 635                 640

Tyr Glu Asp Asp Glu Thr Pro Gly Ala Leu Ser Gly Leu Thr Lys Met
                645                 650                 655

Ala Val Ser Gln Ile Asp Gly His Met Ser Gly Gln Met Val Glu His
            660                 665                 670

Leu Met Asn Ser Val Met Lys Leu Cys Val Ile Ile Ala Lys Ser Cys
        675                 680                 685

Asp Ala Ser Leu Ala Glu Leu Gly Asp Asp Lys Leu Gly Asp Ala Ser
    690                 695                 700

Arg Leu Thr Ser Ala Phe Pro Asp Ser Leu Tyr Glu Cys Leu Pro Ala
705                 710                 715                 720

Lys Gly Thr Gly Ser Ala Glu Ala Val Leu Gln Asn Ala Tyr Gln Ala
                725                 730                 735

Ile His Asn Glu Met Arg Gly Thr Ser Gly Gln Pro Pro Glu Gly Cys
            740                 745                 750

Ala Ala Pro Thr Val Ile Val Ser Asn His Asn Leu Thr Asp Thr Val
        755                 760                 765

Gln Asn Lys Gln Leu Gln Ala Val Leu Gln Trp Val Ala Ala Ser Glu
    770                 775                 780

Leu Asn Val Pro Ile Leu Tyr Phe Ala Gly Asp Asp Glu Gly Ile Gln
785                 790                 795                 800

Glu Lys Leu Leu Gln Leu Ser Ala Ala Ala Val Asp Lys Gly Cys Ser
                805                 810                 815

Val Gly Glu Val Leu Gln Ser Val Leu Arg Tyr Glu Lys Glu Arg Gln
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Leu Asn Glu Ala Val Gly Asn Val Thr Pro Leu Gln Leu Leu Asp Trp
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Leu Met Val Asn Leu
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<213> Homo sapiens

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Val Asp Leu Tyr Asn Pro Glu Gly Gln Gln Asp Gln Asp Arg Lys Val
            20                  25                  30

Ile Cys Phe Val Asp Val Ser Thr Leu Asn Val Glu Asp Lys Asp Tyr
        35                  40                  45

Lys Asp Ala Ala Ser Ser Ser Ser Glu Gly Asn Leu Asn Leu Gly Ser
    50                  55                  60

Leu Glu Glu Lys Glu Ile Ile Val Ile Lys Asp Thr Glu Lys Lys Asp
65                  70                  75                  80

Gln Ser Lys Thr Glu Gly Ser Val Cys Leu Phe Lys Gln Ala Pro Ser
                85                  90                  95

Asp Pro Val Ser Val Leu Asn Trp Leu Leu Ser Asp Leu Gln Lys Tyr
            100                 105                 110

Ala Trp Gly Phe Gln His Glu Leu Ser Pro Ser Thr Ser Thr Cys Lys
        115                 120                 125

His Lys Val Gly Asp Thr Glu Gly Asp Tyr His Arg Ala Ser Ser Glu
    130                 135                 140

Asn Cys Tyr Ser Val Tyr Ala Asp Gln Val Asn Ile Asp Tyr Leu Met
145                 150                 155                 160

Asn Arg Pro Gln Asn Leu Arg Leu Glu Met Thr Ala Ala Lys Asn Thr
                165                 170                 175

Asn Asn Asn Gln Ser Pro Ser Ala Pro Pro Ala Lys Pro Pro Ser Thr
            180                 185                 190

Gln Arg Ala Val Ile Ser Pro Asp Gly Glu Cys Ser Ile Asp Asp Leu
        195                 200                 205

Ser Phe Tyr Val Asn Arg Leu Ser Ser Leu Val Ile Gln Met Ala His
    210                 215                 220

Lys Glu Ile Lys Glu Lys Leu Glu Gly Lys Ser Lys Cys Leu His His
225                 230                 235                 240

Ser Ile Cys Pro Ser Pro Gly Asn Lys Glu Arg Ile Ser Pro Arg Thr
                245                 250                 255

Pro Ala Ser Lys Ile Ala Ser Glu Met Ala Tyr Glu Ala Val Glu Leu
            260                 265                 270

Thr Ala Ala Glu Met Arg Gly Thr Gly Glu Glu Ser Arg Glu Gly Gly
        275                 280                 285

Gln Lys Ser Phe Leu Tyr Ser Glu Leu Ser Asn Lys Ser Lys Ser Gly
    290                 295                 300

Asp Lys Gln Met Ser Gln Arg Glu Ser Lys Glu Phe Ala Asp Ser Ile
305                 310                 315                 320

Ser Lys Gly Leu Met Val Tyr Ala Asn Gln Val Ala Ser Asp Met Met
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Val Ser Leu Met Lys Thr Leu Lys Val His Ser Ser Gly Lys Pro Ile
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Pro Ala Ser Val Val Leu Lys Arg Val Leu Leu Arg His Thr Lys Glu
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Ile Val Ser Asp Leu Ile Asp Ser Cys Met Lys Asn Leu His Asn Ile
370 375 380

Thr Gly Val Leu Met Thr Asp Ser Asp Phe Val Ser Ala Val Lys Arg
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Met Leu Ile Leu Leu Val Ser Ala Leu Ile Gly Glu Glu Lys Glu Thr
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Lys Ser Gln Ser Leu Ser Tyr Ala Ser Leu Lys Ala Gly Ser His Asp
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Pro Lys Cys Arg Asn Gln Ser Leu Glu Phe Ser Thr Met Lys Ala Glu
450 455 460

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Leu Thr Ser Ala Glu Lys Val Gly Glu His Ile Leu Lys Glu Gly Leu
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500 505 510

Ala Cys Ser Asn Lys Asp Glu Lys Gly Glu Lys Ile Asn Ala Ser Thr
515 520 525

Asp Ser Leu Ala Lys Asp Leu Ile Val Ser Ala Leu Lys Leu Ile Gln
530 535 540

Tyr His Leu Thr Gln Gln Thr Lys Gly Lys Asp Thr Cys Glu Glu Asp
545 550 555 560

Cys Pro Gly Ser Thr Met Gly Tyr Met Ala Gln Ser Thr Gln Tyr Glu
565 570 575

Lys Cys Gly Gly Gly Gln Ser Ala Lys Ala Leu Ser Val Lys Gln Leu
580 585 590

Glu Ser His Arg Ala Pro Gly Pro Ser Thr Cys Gln Lys Glu Asn Gln
595 600 605

His Leu Asp Ser Gln Lys Met Asp Met Ser Asn Ile Val Leu Met Leu
610 615 620

Ile Gln Lys Leu Leu Asn Glu Asn Pro Phe Lys Cys Glu Asp Pro Cys
625 630 635 640

Glu Gly Glu Asn Lys Cys Ser Glu Pro Arg Ala Ser Lys Ala Ala Ser
645 650 655

Met Ser Asn Arg Ser Asp Lys Ala Glu Glu Gln Cys Gln Glu His Gln

660 665 670

Glu Leu Asp Cys Thr Ser Gly Met Lys Gln Ala Asn Gly Gln Phe Ile
675 680 685

Asp Lys Leu Val Glu Ser Val Met Lys Leu Cys Leu Ile Met Ala Lys
690 695 700

Tyr Ser Asn Asp Gly Ala Ala Leu Ala Glu Leu Glu Glu Gln Ala Ala
705 710 715 720

Ser Ala Asn Lys Pro Asn Phe Arg Gly Thr Arg Cys Ile His Ser Gly
725 730 735

Ala Met Pro Gln Asn Tyr Gln Asp Ser Leu Gly His Glu Val Ile Val
740 745 750

Asn Asn Gln Cys Ser Thr Asn Ser Leu Gln Lys Gln Leu Gln Ala Val
755 760 765

Leu Gln Trp Ile Ala Ala Ser Gln Phe Asn Val Pro Met Leu Tyr Phe
770 775 780

Met Gly Asp Lys Asp Gly Gln Leu Glu Lys Leu Pro Gln Val Ser Ala
785 790 795 800

Lys Ala Ala Glu Lys Gly Tyr Ser Val Gly Gly Leu Leu Gln Glu Val
805 810 815

Met Lys Phe Ala Lys Glu Arg Gln Pro Asp Glu Ala Val Gly Lys Val
820 825 830

Ala Arg Lys Gln Leu Leu Asp Trp Leu Leu Ala Asn Leu
835 840 845

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<213> Homo sapiens

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Val Met

<210> 7

<211> 18

<212> PRT

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Ser Cys

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Ser Val Phe Phe Asn Phe Ile Leu Arg
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